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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/674,022	02/14/2001	Frank Kowalewski	10191/1554	8945
26646	7590	10/05/2004	EXAMINER	
KENYON & KENYON ONE BROADWAY NEW YORK, NY 10004			CHANG, EDITH M	
			ART UNIT	PAPER NUMBER
			2637	
DATE MAILED: 10/05/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/674,022	Applicant(s) KOWALEWSKI, FRANK	
	Examiner Edith M Chang	Art Unit 2637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered. The article by A. Klein, G.K. Kaleh, and P.W. Baier: "Zero Forcing and Minimum Mean-Square-Error Equalization for Multiuser Detection in Code-Division Multiple-Access Channels," IEEE Trans. Vehic. Tech. listed in the Background of the Invention has not been considered.

Drawings

2. Figure 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated, stated on page 3 line 13 of the specification. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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3. The drawings are objected to because the following informalities: In Figure 1, add "base station" to numeral 1 and "mobile station" to one of the numeral 2. In Figure 2, add "base station" to numeral 1; "mobile station" to numeral 2; "modulator" to numeral 4; "code generator" to numeral 5; "data source" to numeral 6; "demodulator" to numeral 7; "data user" to numeral 8; "code generator" to numeral 9 and "channel estimator" to numeral 10.

In Figure 3, the numeral 2 should be labeled "mobile station" and numeral 1 should be labeled "base station" as described on page 5 lines 25-35 of the specification.

No new matter should be entered. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. Claims 10, 14 and 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The “pre-equalization” is not described in the specification that the pre-equalization can be made or implemented following the description including how to make or perform the invention of “pre-equalization” by using what elements or steps.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 10-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kleider et al. (US 6,084,919) in view of Bruckert et al. (US 5,822,359).

Regarding **claims 10 & 14**, In FIG.1 and FIG.2, Kleider et al. discloses an apparatus and its method, the elements 202 & 204 of FIG.1 (or elements 12 & 16 of FIG.2 which is the detail of the FIG.1). The apparatus comprises: a modulator (FIG.1 block 212/FIG.2 block 24); a channel estimator coupled to the modulator (FIG.1 element 214 or FIG.2 element 26). In FIG.1, the transmit parameter determination unit 214 determines optimal parameters for the transmit signal (column 3 lines 50-60), so basing on information received from the channel estimator the

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modulator performs the pre-equalization. Kleider et al. does not explicitly show the code generator for the CDMA the technique that the Kleider et al.'s system implemented for (column 2 lines 50-65).

However, Bruckert et al. teaches and shows the code generator coupled to the modulator to generate all of the different codes of mobiles in FIG.1 block 116, column 2 lines 30-35 and column 10 lines 31-40. As Kleider et al.'s unit for CDMA system, it provides the code generator generating all different codes of different users that the unit needs to communicate with (shown in FIG.5 and column 10 lines 5-20). Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to have the code generator coupled to modulator taught by Bruckert et al. in Kleider et al.'s unit for the purpose of generating spread codes for the different users in order to communicate with all users in the radio channels in the mobile cellular system.

Regarding **claims 11-12 & 15-16**, In FIG.5 and column 10 lines 5-20, Kleider et al. discloses the data is transmitted from the base station to the mobile stations and from the mobile stations to the mobile station.

Regarding **claim 17**, In FIG.5 column 10 lines 5-20, Kleider et al. discloses a system comprising: a base station (element 62) and mobile stations (communicators 60 and 64). The base station and mobile stations have the same structure as the communication unit shown in FIG.1 or FIG.2, wherein the base station or the mobile station comprises both the transmitting unit and receiving unit: element 202 FIG.1 or element 12 FIG.2 is the transmitting unit, element 204 FIG.1 or element 16 FIG.2 is the receiving unit. Therefore Kleider et al. discloses the invention of the claim as cited (refer to the rationale of the rejection of claims 10 & 14).

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Regarding **claims 13 & 18**, In FIG.1, Kleider et al. discloses the transmit parameter determination block 214 (or the channel classification monitor block 26) ascertaining the channel properties from data transmissions from the block 204 to the block 202 (or from block 16 to block 12 in FIG.2), wherein the block 202 of FIG.1 (block 12 of FIG.2) is in the base station, the block 204 of FIG.1 (block 12 of FIG.2) is in the mobile station.

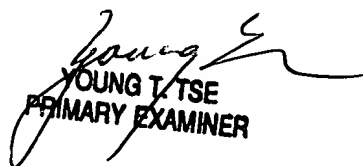
Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edith M Chang whose telephone number is 571-272-3041. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jayanti Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Edith Chang
September 24, 2004


YOUNG T. TSE
PRIMARY EXAMINER